

Remarks

Claims 1-15 were pending in the subject application. By this Amendment, the applicants have amended claims 1-5 and 14. No new matter has been added by these amendments. Support can be found throughout the original specification and claims (see, e.g., page 6, lines 26-28). Accordingly, claims 1-15 are before the Examiner for further consideration.

The amendments to the claims have been made in an effort to lend greater clarity to the claimed subject matter and to expedite prosecution. These amendments should not be taken to indicate the applicants' agreement with, or acquiescence to, the rejections of record. Favorable consideration of the claims now presented, in view of the remarks and amendments set forth herein, is earnestly solicited.

Initially, the Abstract of the disclosure has been objected to for formalities. The applicants thank the Examiner for carefully reviewing the specification. By this Amendment, the Abstract has been amended to fall in the recommended range of 50 to 150 words and to remove the word "comprises." Accordingly, reconsideration and withdrawal of this objection is respectfully requested.

Claims 1, 5-7, and 14-15 have been rejected under 35 U.S.C. §102(b) as being anticipated by Lowe *et al.* (US Patent No. 5,989,923). The applicants respectfully traverse this ground for rejection because the cited reference does not disclose the claimed invention.

By this Amendment, the applicants have amended the claims to recite that the apparatus for detecting an analyte comprises a sensor and a unit of optical fibers for transmitting light to and from the hologram of the sensor. Lowe *et al.*, on the other hand, do not disclose or even contemplate the use of such a unit of optical fibers.

It is basic premise of patent law that, in order to anticipate, a single prior art reference must disclose within its four corners, each and every element of the claimed invention. In *Lindemann v. American Hoist and Derrick Co.*, 221 USPQ 481 (Fed. Cir. 1984), the court stated:

Anticipation requires the presence in a single prior art reference, disclosure of each and every element of the claimed invention, arranged as in the claim. *Connell v. Sears Roebuck and Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983); *SSIH Equip. S.A. v. USITC*, 718 F.2d 365, 216 USPQ 678 (Fed. Cir. 1983). In deciding the

issue of anticipation, the [examiner] must identify the elements of the claims, determine their meaning in light of the specification and prosecution history, and identify corresponding elements disclosed in the allegedly anticipating reference. *SSIH, supra; Kalman [v. Kimberly-Clarke]*, 713 F.2d 760, 218 USPQ 781 (Fed. Cir. 1983)] (emphasis added). 221 USPQ at 485.

In *Dewey v. Almy Chem. Co. v. Mimex Co.*, Judge Learned Hand wrote:

No doctrine of the patent law is better established than that a prior patent . . . to be an anticipation must bear within its four corners adequate directions for the practice [of the subsequent invention] . . . if the earlier disclosure offers no more than a starting point . . . if it does not inform the art without more how to practice the new invention, it has not correspondingly enriched the store of common knowledge, and it is not an anticipation. 124 F.2d 986, 990; 52 USPQ 138 (2nd Cir. 1942).

As noted above, *Lowe et al.* do not disclose an apparatus comprising a sensor and a unit of optical fibers. Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. §102(b) is respectfully requested.

Claims 2-3 and 8-13 have been rejected under 35 U.S.C. §103(a) as being unpatentable over *Lowe et al.* in view of *Mizutani et al.* (US Patent No. 6,483,611). The applicants respectfully traverse this ground for rejection because the cited combination of references does not teach or suggest the claimed invention.

The arguments presented above with respect to the rejection under §102(b) are hereby incorporated in their entirety. *Mizutani et al.* do not cure or even address the deficiencies of *Lowe et al.* Specifically, neither *Lowe et al.* nor *Mizutani et al.* teach a method for an apparatus for detecting an analyte, comprising a sensor and a unit of optical fibers.

While the applicants recognize that references cannot be attacked only individually in an obviousness rejection, certain features of the claimed invention are not found anywhere in the combination of cited references. In fact, the applicants respectfully submit that, absent the benefit of hindsight, a skilled artisan would have had no reason to modify the teachings of *Lowe et al.* and *Mizutani et al.* to arrive at the claimed invention. Hindsight reconstruction of the prior art cannot

support a §103 rejection, as was specifically recognized by the CCPA in *In re Sponnoble*, 56CCPA 823, 160 USPQ 237, 243 (1969).

Additionally, with respect to claim 11, the Office Action indicates at page 5 that the change in shape to a corner cube prism is not significant to the function of the sensor and would have therefore been within the level of ordinary skill in the art. The applicants respectfully disagree. As disclosed at page 4, lines 4-13, a hologram recorded using a corner cube prism can have “a retroreflecting effect on incident light. Such a sensor is advantageous because the optical detector does not need to be placed at a particular position with respect to the sensor.” Additionally, another benefit associated with the use of a corner cube prism is that any response of the sensor can be viewed from a wider range of angles (i.e., a greater angular tolerance) than for a conventional sensor.” Thus, it is clear from the specification that the use of a corner cube prism can provide advantages and is not insignificant to the function of the present invention.

As discussed above, the combination of cited references fails to teach or suggest an apparatus comprising a unit of optical fibers. In addition, the use of a corner cube prism can provide significant advantages.

Accordingly, reconsideration and withdrawal of the rejection based on *Lowe et al.* and *Mizutani et al.* is respectfully requested.

Claim 4 has been rejected under 35 U.S.C. §103(a) as being unpatentable over *Lowe et al.* The applicants respectfully traverse this ground for rejection because the *Lowe et al.* reference does not teach or suggest the claimed invention.

The examiner concedes that *Lowe et al.* do not teach a hologram formed of a corner cube prism, but then asserts that such a prism is a mere change in shape that is not significant to the function of the sensor. As discussed above with respect to the rejection based on *Lowe et al.* and *Mizutani et al.*, a hologram formed as a corner cube prism can provide advantages and is not insignificant to the function of the present invention. This advantageous element, which is required by claim 4, is not found anywhere in the cited reference.

Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. §103(a) based on *Lowe et al.* is respectfully requested.

In view of the foregoing remarks and the amendment above, the applicants believe that the currently pending claims are in condition for allowance, and such action is respectfully requested.

The Commissioner is hereby authorized to charge any fees under 37 CFR §§1.16 or 1.17 as required by this paper to Deposit Account No. 19-0065.

The applicants also invite the Examiner to call the undersigned if clarification is needed on any of this response, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,



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